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SCHWABE, WILLIAMSON & WYATT, P.C.
PACWEST CENTER, SUITE 1900
1211 SW FIFTH AVENUE
PORTLAND, OR 97204

EXAMINER

COUGHLAN, PETER D

ART UNIT	PAPER NUMBER
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2129

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/736,657	Applicant(s) LOPEZ-ESTRADA, ALEX A.	
	Examiner Peter Coughlan	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-27,29-31 and 34-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-27,29-31 and 34-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/15/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This office action is in response to an AMENDMENT entered December 7, 2006 for the patent application 10/736657 filed on December 15, 2003.

2. The previous Office Action of October 13 2006 is fully incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 11-27, 29-31, 34-37 are pending.

35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-27, 28-31, 34-37 are rejected under 35 U.S.C. 101 for nonstatutory subject matter. The computer system must set forth a practical application of that § 101

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judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application. The determination of a workload executed or being executed by a platform resembles a reference workload is not a practical application. The result has to be a practical application. Please see the interim guidelines for examination of patent applications for patent subject matter eligibility published November 22, 2005 in the official gazette.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. By comparing a workload to a reference workload is nothing more than an exercise within the platform and the analyzer.

The invention must be for a practical application and either:

- 1) specify transforming (physical thing) or
- 2) have the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/ non-unpredictable), AND tangible (real world/ non-abstract) result.

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A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

There needs to be a real world application or function for comparing a workload to a reference workload. See section 7. of this office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-27, 29-31, 36, 37 are rejected under 35 U.S.C. 102(b) (hereinafter referred to as **Reinemann**) being anticipated by Reinemann , U.S. Patent Publication 20030115118.

Claim 17.

Reinemann anticipates generating a lookup index to one or more sets configuration parameters values (**Reinemann**, ¶0013 and abstract; 'Generating a

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lookup index' is nothing more than values based of current resource workload. 'One or more sets configuration parameter values' of applicant is equivalent to 'parameters configured to specify a target range for each of the resources...' of Reinemann.) based at least in part on one or more performance events observed in associated with a platform's execution of a workload (**Reinemann**, ¶0011; 'Index' of applicant is equivalent to 'archived' by Reinemann.); and selecting one of one or more pre-established sets of configuration parameter values, based at least in part on the generated lookup index (**Reinemann**, ¶0013), for application to configure the platform. (**Reinemann**, ¶0012; The policy manager uses the performance status for determination and the performance status is indexed (equivalent to archived of Reinemann))

Claim 18.

Reinemann anticipates evaluating an index function in view of the one or more performance events observed. (**Reinemann**, ¶0003 and Figure #1; The utilization of processors 11, 12 and 13 in Figure #1 are monitored for overloading or underutilization. The results of these are archived for the policy manager to evaluate.)

Claim 19.

Reinemann anticipates performing a selected one of receiving the one or more performance events observed; and monitoring said execution of the workload by the

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platform. (**Reinemann**, ¶0014; The policy manager monitors the resource utilization.

'Performance events' of applicant is equivalent to 'resource utilization' of Reinemann.)

Claim 20.

Reinemann anticipates performing a selected one of providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform (**Reinemann**, ¶0013; 'Providing information' of applicant is equivalent to 'target range' of parameters of Reinemann.); and applying the selected set of one or more configuration parameter values to configure the platform, the platform being a part of the system. (**Reinemann**, abstract; 'Applying' the set of applicant is equivalent 'releasing a portion' of Reinemann.)

Claim 21.

Reinemann anticipates storage medium having stored therein programming instructions designed to enable the apparatus (**Reinemann**, ¶0002; 'Storage medium' of applicant is equivalent to 'disk storage' of Reinemann.) to determine whether a workload executed or being executed by a platform sufficiently resembles a reference workload, based at least in part on one or more performance events observed from monitoring the platform's execution of the workload (**Reinemann**, ¶0014; 'performance events', 'monitoring' and 'workload' of applicant is equivalent to 'resource', 'monitors' and 'processors' of Reinemann.), and if the workload is determined to sufficiently resemble

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the reference workload, perform at least a selected one of selecting a set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload (**Reinemann**, abstract; 'Applying' the set of applicant is equivalent 'releasing a portion' of Reinemann.), and providing information about the determined resembled reference workload to facilitate the selection of the set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload (**Reinemann**, ¶0012; The 'accounting manager' of Reinemann provides information to the 'policy manager' which selects the policy (equivalent to 'set' of applicant)); and at least one processor coupled to the storage medium to execute the programming instructions. (**Reinemann**, ¶0002)

Claim 22.

Reinemann anticipates programming instructions are designed to enable the apparatus to perform said determine by determining a plurality of correlation metrics between the workload and the reference workload, based on the one or more performance events observed during said monitoring, observed during at least one prior execution of the reference workload (**Reinemann**, ¶0037; 'Correlation metric ' of applicant is equivalent to 'utilization' of Reinemann.); and determining whether at least one of determined correlation metrics exceeds a correlation threshold. (**Reinemann**, ¶0037; 'Correlation threshold' of applicant is equivalent to 'threshold' of Reinemann.)

Claim 23.

Reinemann anticipates receiving the one or more performance events observed during said monitoring (**Reinemann**, ¶0014; The policy manager monitors the resource utilization. 'Performance events' of applicant is equivalent to 'resource utilization' of Reinemann.); monitoring the execution of the workload to observe the one or more performance events; providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform (**Reinemann**, ¶0013; 'Providing information' of applicant is equivalent to 'target range' of parameters of Reinemann.); and applying the selected set of one or more configuration parameter values to configure the platform. (**Reinemann**, abstract; 'Set' and 'applying' of applicant is equivalent to 'policy' and 'releasing a portion' of Reinemann.)

Claim 24.

Reinemann anticipates storage medium having stored therein programming instructions (**Reinemann**, ¶0002; 'Storage medium' of applicant is equivalent to 'disk storage' of Reinemann.) designed to enable the apparatus to generate a lookup index to one or more sets of configuration parameter values (**Reinemann**, ¶0013 and abstract; 'Generating a lookup index' is nothing more than values based of current resource workload. 'One or more sets configuration parameter values' of applicant is equivalent to 'parameters configured to specify a target range for each of the resources...' of Reinemann. 'Configuration parameters' of applicant is equivalent to 'parameters configured' of Reinemann.), based at least in part on one or more performance events

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observed in associated with a platform's execution of a workload (**Reinemann**, ¶0011; 'Index' of applicant is equivalent to 'archived' by Reinemann.); and select one of one or more pre-established sets of configuration parameter values, based at least in part on the generated index, for application to configure the platform (**Reinemann**, ¶0012; The policy manager uses the performance status for determination and the performance status is indexed (equivalent to archived of Reinemann).); and at least a processor coupled to storage medium to execute the programming instructions. (**Reinemann**, ¶0002)

Claim 25.

Reinemann anticipates evaluating an index function in view of the one or more performance events observed. (**Reinemann**, ¶0003 and Figure #1; The utilization of processors 11, 12 and 13 in Figure #1 are monitored for overloading or underutilization. The results of these are archived for the policy manager to evaluate.)

Claim 26.

Reinemann anticipates receiving the one or more performance events observed; monitoring said execution of the workload by the platform (**Reinemann**, ¶0014; The policy manager monitors the resource utilization. 'Performance events' of applicant is equivalent to 'resource utilization' of Reinemann.); providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform

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(**Reinemann**, ¶0013; 'Providing information' of applicant is equivalent to 'target range' of parameters of Reinemann.); and applying the selected set of one or more configuration parameter values to configure the platform, the platform being a part of the system. (**Reinemann**, abstract; 'Set' and 'applying' of applicant is equivalent to 'policy' and 'releasing a portion' of Reinemann.)

Claim 27.

Reinemann anticipates a platform to execute a workload (**Reinemann**, abstract ; 'Workload' and 'platform' of applicant is equivalent to 'processors (NOTE ≠ CPU)' and 'network of processors' of Reinemann.); a monitor, either coupled to or an integral part of the platform, to observe one or more performance events associated with the platform's execution of the workload (**Reinemann**, ¶0012; 'Monitor' of applicant is equivalent to 'interface' if Reinemann.; and an analyzer coupled to the monitor to receive the one or more performance events observed, and in response (**Reinemann**, ¶0012; 'Analyzer' of applicant is equivalent to 'policy manager' of Reinemann.), at least contribute to selecting if possible, a set of one or more configuration parameters values for application to configure the platform, based at least in part on the one or more performance events observed (**Reinemann**, abstract; 'Set' and 'applying' of applicant is equivalent to 'policy' and 'releasing a portion' of Reinemann.), wherein the analyzer is adapted to at least contribute by determining whether the workload resembles one of one or more reference workloads (**Reinemann**, ¶0013; 'reference workload' of applicant is equivalent to 'usage pattern' of Reinemann.), based at least in part on the received

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one or more performance events observed, the resembled reference workload being employed to facilitate said selection of one of the one or more configuration parameter values. (**Reinemann**, ¶0013; 'Analyzer' of applicant is equivalent to 'policy manager' of Reinemann. 'Performance events' of applicant is demonstrated by 'resources operates above the upper threshold' of Reinemann. 'Configuration parameter' of applicant is equivalent to 'parameter configured' of Reinemann.)

Claim 29.

Reinemann anticipates the analyzer is adapted to at least contribute by generating a lookup index to one or more sets of configuration parameter values (**Reinemann**, ¶0013 and abstract; 'Generating a lookup index' is nothing more than values based of current resource workload. 'One or more sets configuration parameter values' of applicant is equivalent to 'parameters configured to specify a target range for each of the resources...' of Reinemann. 'Configuration parameters' of applicant is equivalent to 'parameters configured' of Reinemann.), to facilitate said selection of one of the one or more configuration parameter values, based at least in part on the received one or more performance events observed. (**Reinemann**, ¶0011; 'Index' of applicant is equivalent to 'archived' by Reinemann.)

Claim 30.

Reinemann anticipates a first networking interface; and the system further comprises a computing device hosting the analyzer, the computing device including a

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second networking interface to couple the computing device with the platform via a network connection. (**Reinemann**, ¶0012 and ¶0019; The analyzer of applicant is equivalent to 'policy manager' of Reinemann. 'First networking interface' and 'second networking interface' of applicant is equivalent to 'user A' and user B' of Reinemann. If both Users A & B can 'identify' resources then there must exist an interface.)

Claim 31.

Reinemann anticipates a machine readable medium instructions (**Reinemann**, ¶0002; 'Machine readable medium' of applicant is equivalent to 'disk storage' of Reinemann.); and a plurality of programming instructions on the machine readable medium, designed to enable an apparatus to observe one or more performance events associated with a platform's execution of a workload or receive the one or more performance events observed (**Reinemann**, ¶0012, abstract 'Performance events', 'platform' 'observed' of applicant are equivalent to 'utilization the resources', 'network or processors' 'obtains the performance status' of Reinemann.), and to at least contribute in selection of one or more configuration parameters values for application to configure the platform, based at least in part on the one or more performance events observed, (**Reinemann**, ¶0012 and ¶0013; The 'policy manager' selects which policy (equivalent to 'set' of applicant) to implement and each policy includes parameters.) wherein the at least contributing includes the platform determining whether the workload resembles one of one or more reference workloads (**Reinemann**, ¶0013; 'reference workload' of applicant is equivalent to 'usage pattern' of Reinemann.), based at least in part on the

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received one or more performance events observed, the resembled reference workloads to be employed to facilitate said selection of one or ore configuration parameter values (**Reinemann**, abstract, ¶0013; 'Events observed' and 'performance events' of applicant is equivalent to 'monitor and 'resource utilization' of Reinemann. 'Configuration parameters' of applicant is equivalent to 'parameters configured' of Reinemann.); or generating a lookup index to one or more sets (**Reinemann**, ¶0013 and abstract; 'Generating a lookup index' is nothing more than values based of current resource workload. 'One or more sets configuration parameter values' of applicant is equivalent to 'parameters configured to specify a target range for each of the resources...' of Reinemann.) of configuration parameter (**Reinemann**, ¶0013; 'Configuration parameters' of applicant is equivalent to 'parameters configured' of Reinemann.) values based at least in part on the received observed one or more performance events, to facilitate said selection of one of the one or more configuration parameter values. (**Reinemann**, ¶0013 and ¶0014; 'Performance events' of applicant is demonstrated by 'resources operates above the upper threshold' of Reinemann. 'Selection'...'configuration parameters' of applicant is performed by the 'centralized policy manager' which 'manages resource utilization' of Reinemann.)

Claim 36

Monitoring at least a selected one of a processor performance counter (**Reinemann**, ¶0011; 'Processor performance counter' of applicant is illustrated by the 'accounting manager' of Reinemann.), an OS performance counter (**Reinemann**,

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¶0011), and a chipset performance counter (**Reinemann, ¶0011**), while the platform executes the workload.

Claim 37

One or more of processor configuration parameters values (**Reinemann, ¶0028**; 'Processor configuration parameters' of applicant is equivalent to 'memory usage' of Reinemann.), OS configuration parameter values (**Reinemann, ¶0028**; 'OS configuration parameter' of applicant is equivalent to 'processor utilization' of Reinemann.), and chipset configuration parameter values. (**Reinemann, ¶0028**; 'Chipset configuration parameter' of applicant is equivalent to 'virtual memory swap file usage' of Reinemann.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 11-16, 34, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Reinemann, as set forth above, and further in view of Chiu. (U. S. Patent Publication 20020186658, referred to as **Chiu**).

Claim 11.

Reinemann teaches determining. (**Reinemann**, ¶0012; 'Determining' of applicant is accomplished by the 'policy manager' of Reinemann.)

Reinemann fails to teach whether a workload executed or being executed by a platform resembles a reference workload.

Chiu teaches whether a workload executed or being executed by a platform resembles a reference workload. (**Chiu**, ¶0023; 'Reference workload' of applicant is equivalent to 'OSPF' of Chiu.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Reinemann by going into specific detail of an accepted that can be used with the method as taught by Chiu to have whether a workload executed or being executed by a platform resembles a reference workload.

For the purpose of integrating the method into the real world situation.

Reinemann teaches based at least in part on one or more performance events observed from monitoring the platform's execution of the workload (**Reinemann**, 'Performance events' of applicant is equivalent to 'respective resources' of Reinemann.); and if the workload is determined to resemble the reference workload, performing a selected one of selecting a set of one or more configuration parameter

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values pre-selected for the platform to execute the resembled reference workload (Reinemann, ¶0013; 'Set' of applicant is equivalent to 'policy' of Reinemann.), and providing information about the determined resembled reference workload to facilitate the selection of the set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload. (Reinemann, ¶0012; The 'accounting manager' of Reinemann provides information to the 'policy manager' which selects the policy (equivalent to 'set' of applicant)

Claim 12

Reinemann fails to particularly call for one or more reference workloads comprise at least a selected one of a route look-up workload, a OSPF workload, a JPEG codec workload, a 3DES encryption/decryption workload, an AES encryption/decryption workload, an IP packet forwarding workload, and a H.323 speech codec workload.

Chiu teaches one or more reference workloads comprise at least a selected one of a route look-up workload, a OSPF workload, a JPEG codec workload, a 3DES encryption/decryption workload, an AES encryption/decryption workload, 6 an IP packet forwarding workload, and a H.323 speech codec workload. (Chiu, ¶0023) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Reinemann by gonging into some specific detail on what a 'reference workload' is as taught by Chiu to have one or more reference workloads comprise at least a selected one of a route look-up workload, a OSPF workload, a JPEG codec workload, a 3DES encryption/decryption workload, an

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AES encryption/decryption workload, an IP packet forwarding workload, and a H.323 speech codec workload.

For the purpose of indicating that the invention is compatible with real world protocols that would enable it to interact with other real world systems.

Claim 13.

Reineman anticipates determining a correlation metric between the workload and the reference workload, based on the one or more performance events observed during said monitoring (**Reinemann**, ¶0037; 'Correlation metric' of applicant is equivalent to 'utilization' of Reinemann.), and observed during at least one prior execution of the reference workload; and determining whether the correlation metric exceeds a correlation threshold. (**Reinemann**, ¶0037; 'Correlation threshold' of applicant is equivalent to 'threshold' of Reinemann.)

Claim 14.

Reineman anticipates receiving the one or more performance events observed during said monitoring; and said monitoring. (**Reinemann**, ¶0014; The policy manager monitors the resource utilization. 'Performance events' of applicant is equivalent to 'resource utilization' of Reinemann.)

Claim 15.

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Reineman anticipates the platform; and the method further comprises executing the workload (**Reinemann**, abstract; 'Workload' and 'platform' of applicant is equivalent to 'processors (NOTE ≠ CPU)' and 'network of processors' of Reinemann.), and performing said monitoring. (**Reinemann**, abstract; 'Monitoring' of applicant is equivalent to 'monitor of Reinemann.)

Claim 16.

Reineman anticipates said performing comprises selecting a set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload (**Reinemann**, ¶0012; The policy manager selects policies and pre-selects based on performance status.); and the method further comprises performing a selected one of applying the selected set of one or more configuration parameter values to configure the platform (**Reinemann**, abstract; 'Applying' the set of applicant is equivalent 'releasing a portion' of Reinemann.) , and providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform. (**Reinemann**, ¶0013; 'Providing information' of applicant is equivalent to 'target range' of parameters of Reinemann.)

Claim 34

Reinemann anticipates monitoring at least a selected one of a processor performance counter (**Reinemann**, ¶0011; 'Processor performance counter' of applicant

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is illustrated by the 'accounting manager' of Reinemann.), an OS performance counter (**Reinemann, ¶0011**), and a chipset performance counter (**Reinemann, ¶0011**), while the platform executes the workload.

Claim 35

Reinemann anticipates one or more of processor configuration parameters values (**Reinemann, ¶0028**; 'Processor configuration parameters' of applicant is equivalent to 'memory usage' of Reinemann.), OS configuration parameter values (**Reinemann, ¶0028**; 'OS configuration parameter' of applicant is equivalent to 'processor utilization' of Reinemann.), and chipset configuration parameter values. (**Reinemann, ¶0028**; 'Chipset configuration parameter' of applicant is equivalent to 'virtual memory swap file usage' of Reinemann.)

Response to Arguments

5. Applicant's arguments filed on December 7, 2006 for claims 11-27, 29-31, 34-37 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

Claim Rejections under 35 U.S.C. §112

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In "35 USC § 112," item 4 on page 2 of the above-identified final Office Action, claims 17, 24, 29, and 31 have been rejected under §112, first paragraph, as failing to comply with the enablement requirement. In response, Applicants have amended claims 17, 24, 29, and 31, obviating the rejection.

Examiner's response:

Examiner acknowledges changes in claims 17, 24, 29 and 31 and withdraws the 35 U.S.C. rejection.

7. In reference to the Applicant's argument:

Claim Rejections under 35 U.S.C. § 101

In "35 USC § 101," on page 3 of the above-identified final Office Action, claims 11-35 have been rejected for claiming non-statutory subject matter. On page 4, the Examiner asserts that the phrases "platform adaptation," "platform's execution of the workload," and "configure the platform" are all abstract concepts and have no practical application. Applicant respectfully disagrees.

The Examiner states that the final result of a claim must achieve or produce a useful, concrete, and tangible result. According to the Examiner, the question is not whether the operations taken to achieve the result are useful, tangible, and concrete, but whether the result itself is useful, concrete, and tangible. Applicants assume, then, that the phrases the Examiner rejects under §101 (recited above) are the Examiner's description of the final results of the claimed invention.

Even assuming the Examiner is correct in his description of the final results of the rejected claims, platform adaptation, execution of a workload by a platform, and configuring a platform are all useful, concrete and tangible results.

The Examiner's first phrase "platform adaptation," which is not explicitly recited by any of the claims, seems to refer to the selection of configuration parameter values pre-selected for the platform to execute the reference workload. Such a final result, recited by claims 11, 21, and 27, is a platform adapted to operate based on configuration

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parameter values associated with a reference workload. As such, "platform adaptation" is equivalent to "configure the platform." The real-world value of a configured/adapted platform can be immense. The entire purpose of configuring/adapting the platform is to improve performance. Improved platform performance can save companies and individuals time and resources. This result is useful, since it can substantially benefit the owners of the platform. It is concrete because it is a repeatable, predictable result of the claimed operations. And it is tangible because it can effect business decisions such as whether to buy additional platforms.

Execution of a workload by a platform, the second of the Examiner's phrases, is precisely what computers do. Computers are platforms that execute sets of instructions over a time period (instructions executed over a time period is the definition of a workload – see below). It is indisputable that the operations of computers have real-world value. It is equally indisputable, then, that the execution of a workload by a platform has real-world value and thus constitutes a final result that is useful, concrete, and tangible.

As mentioned above, configuring a platform, the third of the Examiner's phrases, is the same thing as platform adaptation, and is thus a final result that is useful, concrete, and tangible for the reasons given above.

Lastly, the Examiner notes that the rejected claims read on both statutory and non-statutory subject matter, and thus must be amended. The Examiner fails to note, however, any non-statutory subject matter that the claims read on.

Accordingly, Applicants respectfully request that the Examiner withdraw the §101 rejections of claims 11-35.

Examiner's response:

Applicant states that 'The entire purpose of configuring/adapting the platform is to improve performance.' But this is not stated within the claims. In fact the word 'improve' is not mentioned within the specification. In fact the words 'increase, boost, elevate, gain, progress, promote, optimization, rise, raise' are not within the specification as well. The only word in the specification that the Examiner could find

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that is equivalent to 'improve' is 'enhance' (in ¶0020). If the applicant wishes, to use the word 'enhance' within the claims, this might overcome the 35 U.S.C. §101 rejection while remaining within the boundaries of the specification.

8. In reference to the Applicant's argument:

Claim Rejections under 35 U.S.C. 102

In "Claim Rejections – 35 USC § 102," on page 5 of the above-identified final Office Action, claims 17-27, 29-31, 36, and 37 have been rejected as being anticipated by Reinemann, U.S. Patent Publication No. 2003/0115118 under 35 U.S.C. § 102(b).

Claims 21-23, 27, and 29-30

Applicants note that claim 11 has not been rejected as being anticipated by Reinemann under "Claim Rejections — 35 USC § 102." The reason for this, according to the Examiner, is that "Reinemann fails to teach whether a workload executed or being executed by a platform resembles a reference workload" (see page 15 of the final Office Action). Claims 21 and 27 also recite "whether a workload executed or being executed by a platform resembles a reference workload." Thus, rejections of these claims under § 102 is improper. Also, claims 22-23 and 29-30 depend from claims 21 and 27, and are thus also patentable under § 102. Accordingly, Applicants respectfully request that the Examiner withdraw the §102 rejections of claims 21-23, 27, and 29-30.

Examiner's response:

Applicant states "Reinemann fails to teach whether a workload executed or being executed by a platform resembles a reference workload." Reinemann teaches a 'reference workload' in the form of 'The policy includes parameters configured to specify a target range for each of the resources that are designated by the user as sharable.' (Reinemann, ¶0013) In ¶0012, Reinemann discloses a 'policy manager' and a

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'accounting manager' both or which use resources with parameters configured to each resource.

9. In reference to the Applicant's argument:

Claims 17-20, 24-26, 31, 36, and 37

Claim 17, as amended, recites "In a system, a method of operation comprising:

generating a lookup index to one or more sets of configuration parameter values, based at least in part on one or more performance events observed in associated with a platform's execution of a workload; and

selecting one of one or more pre-established sets of configuration parameter values, based at least in part on the generated lookup index, for application to configure the platform."

In contrast, Reinemann simply teaches the monitoring of resource utilization of a processor by collecting performance metrics and archiving them in a log file (Reinemann, paragraph {0011D. In addition to monitoring, Reinemann discloses a policy manager capable of applying policies based on the collected performance metrics, the policies dictating the sharing of resources among a network of processors.

Nothing in Reinemann discloses, expressly or inherently, "generating a lookup index to one or more sets of configuration parameter values." Configuration in Reinemann is driven by policies. Thus, only the policies of Reinemann can be taken as disclosing "configuration parameter values." Reinemann does not teach the generating of a lookup index to policies, however. The only thing arguably reading upon an index disclosed by Reinemann is a time-stamp that may be archived with and capable of identifying performance metrics. Such performance metrics do not dictate a configuration, however, and thus cannot read on "configuration parameter values." Accordingly, Reinemann simply does not teach or suggest, "generating a lookup index to one or more sets of configuration parameter values."

Claims 24 and 31 recite limitations similar to those of claim 17, and are thus patentable over Reinemann for at least the same reasons. Accordingly, Reinemann does not anticipate claims 24 and 31.

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Claims 18-20, 25-26, 36, and 37 depend from amended claims 17 and 24, incorporating their limitations. Accordingly, for at least the same reasons, Reinemann fails to anticipate claims 18-20, 25-26, 36, and 37.

Accordingly, claim 17 is patentable over Reinemann.

Examiner's response:

Applicant states, "generating a lookup index to one or more sets of configuration parameter values." Is not disclosed with Reinemann. Examiner disagrees. The generation of a 'lookup index' is current values based on performance events observed (see applicant's ¶0038). The 'accounting manager' of Reinemann 'collects accounting information to monitor resources utilization at the processor.' (**Reinemann**, abstract) These two are equivalent. 'Generating a lookup index' is nothing more than values based of current resource workload. 'Collecting accounting information' is nothing more than values based of current resource workload.

10. In reference to the Applicant's argument:

Claim Rejections under 35 U.S.C. § 103

In "Claim Rejections – 35 USC § 103," on pages 14-15 of the above-identified final Office Action, claims 11-16, 34, and 35 have been rejected as being unpatentable over Reinemann, and further in view of Chiu, U.S. Patent Publication No. 2002/0186658 under 35 U.S.C. § 103(a).

Claim 11 recites "In a system, a method of operation comprising:

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determining whether a workload executed or being executed by a platform resembles a reference workload, based at least in part on one or more performance events observed from monitoring the platform's execution of the workload; and

if the workload is determined to resemble the reference workload, performing a selected one of

selecting a set of one or more configuration parameter values pre-selected for the platform to execute the resembled reference workload, and

providing information about the determined resembled reference workload to facilitate the selection of the set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload."

The present invention, as claimed in claim 11, teaches a method of determining whether a workload executed or being executed by a platform resembles a reference workload, and selecting a set of configuration parameter values pre-selected for a platform to execute the resembled reference workload. The selected set of configuration parameter values are used to reconfigure the platform for optimal performance.

In contrast, Reinemann simply stands for a method and system of resource sharing among a network of processors, where a policy manager of a processor may decide to share one or more of its resources based on a resource utilization threshold set by a policy (Reinemann, paragraph [0012]). The only comparison necessary to achieve Reinemann's purpose - optimized resource utilization among the processors of the network - is between the performance of a system resource (such as memory utilization) and policy thresholds dictating whether the resource ought to be sharable.

The entire purpose of determining whether a workload resembles a reference workload is so that configuration parameter values associated with the reference workload can be selected to configure the platform. By providing the policy manager with configuration thresholds in the form of policies, the thresholds dictating the configuration of a processor/platform in the Reinemann network of processors, Reinemann teaches away from the necessity of any comparison of a workload to a reference workload. The policy manager already has the "configuration parameter values" (i.e., policy). Thus, there is no reason to determine a reference workload associated with the policy (which is likely why Reinemann does not mention any sort of "reference workload" associated with a policy).

Examiner's response:

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Applicant admits that Reinemann's policy manager decides resource utilization based on policy (and 'The policy includes parameters configured to specify a target range for each of the resources that are designated by the user as sharable.'). Applicant argues that Reinemann does not mention any sort of 'reference workload' associated with a policy. Reinemann teaches a 'reference workload' in the form of 'The policy includes parameters configured to specify a target range for each of the resources that are designated by the user as sharable.' (Reinemann, ¶0013) And in ¶0012, Reinemann discloses a 'policy manager' and a 'accounting manager' both of which use resources with parameters configured to each resource.

Examination Considerations

11. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim: *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

12. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

13. Examiner's Opinion: Paragraphs 11 and 12 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

14. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

-U. S. Patent Publication 20030217096: McKelvie

-U. S. Patent Publication 20030120780: Zhu

-U. S. Patent Publication 20030069924: Peart

-U. S. Patent Publication 20030154266: Bobick

-U. S. Patent Publication 20030225867: Wedlake

-U. S. Patent Publication 20030172135: Bobick

-U. S. Patent Publication 20030074467: Oblak

-U. S. Patent 6615166: Guheen

-U. S. Patent 6292822: Hardwick

16. Claims 11-27, 29-31, 34-37 are rejected.

Correspondence Information

17. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

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401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:


(571) 273-8300 (for formal communications intended for entry.)

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Peter Coughlan

1/09/2007



JOSEPH P. HIRL
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100